

WHAT IS CLAIMED IS:

1           1.    An adjustable gate hinge and latch system for a  
2    fence gate of a fence, the system including:

3                a hinge to interconnect the gate to a first  
4    post of the fence, the hinge supporting the gate and  
5    permitting pivoting movement of the gate relative to the  
6    first fence post; and

7                a latch unit to secure the gate, to a second  
8    post of the fence, in a closed position of the gate;

9                wherein at least one of the hinge and the latch  
10   unit has an arrangement to permit adjustment of the gate  
11   relative to the fence in a direction perpendicular to a  
12   plane of the fence, and the arrangement includes two  
13   components that are relatively movable along the  
14   direction perpendicular to a plane of the fence and that  
15   are secured to each other subsequent to the movement  
16   along the direction perpendicular to the plane of the  
17   fence.

1           2.    A system as set forth in claim 1, wherein the  
2    hinge has the arrangement, the first component is fixedly  
3    attached to the first post, and the second component is  
4    movable along the first component along the direction  
5    perpendicular to the plane of the fence and is secured to  
6    the first component.

1           3.    A system as set forth in claim 2, wherein one  
2    of the two components has an elongate slot extending in  
3    the direction perpendicular to the plane of the fence and  
4    the other of the two components has an opening, a  
5    fastener extends through the slot and the opening, and  
6    the fastener is loosened to permit the relative movement  
7    of the components and is tightened to secure the  
8    components to each other.

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1           4. A system as set forth in claim 3, wherein the  
2 first component has a portion engaged with the first post  
3 and a portion spaced from the first post, and the second  
4 component has a portion located adjacent to the first  
5 post and between the first post and the spaced-away  
6 portion of the first component.

1           5. A system as set forth in claim 4, wherein the  
2 first component has a slot between the engaged portion  
3 and the spaced-away portion, and the second component has  
4 a portion extending from the portion adjacent to the  
5 first post through the slot between the engaged portion  
6 and the spaced-away portion of the first component toward  
7 a pivot connection of the hinge.

1           6. A system as set forth in claim 4, wherein the  
2 portion of the second component located adjacent to the  
3 first post is pressed between the post and the spaced-  
4 away portion of the first component when the fastener is  
5 tightened.

1           7. A system as set forth in claim 4, wherein the  
2 second component has a portion for accepting a hinge pin.

1           8. A system as set forth in claim 7, wherein the  
2 hinge includes a third component pivotally connected to  
3 the second component via the hinge pin, and the third  
4 component having structure for connection of the third  
5 component to the gate.

1           9. A system as set forth in claim 8, wherein the  
2 structure of the third component includes an elongate

3 slot opening to receive a fastener extending into the  
4 gate.

1 10. A system as set forth in claim 1, wherein the  
2 hinge can be inverted to be used on either of the two  
3 posts associated with the gate.

1 11. A system as set forth in claim 10, wherein the  
2 hinge, when mounted on an end surface face of the  
3 associated post, can be arranged to have a side extension  
4 to either the front or the back surface of the post.

1 12. A system as set forth in claim 1, wherein the  
2 latch unit has the arrangement, the first component is  
3 fixedly attached to the gate, and the second component is  
4 movable along the first component along the direction  
5 perpendicular to the plane of the fence and is secured to  
6 the first component.

1 13. A system as set forth in claim 12, wherein the  
2 first component is a gate handle, and the second  
3 component is a latch pin.

1 14. A system as set forth in claim 13, wherein one  
2 of the gate handle and the latch pin has an elongate slot  
3 and the other of the gate handle and the latch pin has an  
4 opening, a fastener extends through the slot and the  
5 opening, and the fastener is loosened to permit the  
6 relative movement of the components and is tightened to  
7 secure the components to each other.

1 15. A system as set forth in claim 14, wherein the  
2 latch unit includes a portion attached to the second  
3 post, the latch pin has a latch bar portion, the latch  
4 bar portion cooperates with the attached portion of the

5 latch unit to secure the gate in the closed position, and  
6 the latch bar portion is displaced in the direction  
7 perpendicular to the plane of the fence during the  
8 relative movement of the components.

1 16. A system as set forth in claim 14, wherein the  
2 gate handle has a portion that extends in the direction  
3 perpendicular to the plane of the fence, the latch pin  
4 has a portion that extends in the direction perpendicular  
5 to the plane of the fence, and during the relative  
6 movement of the components the portion of the latch pin  
7 is moved along the portion of the handle.

1 17. A system as set forth in claim 16, wherein the  
2 gate handle has an opening, the portion of the latch pin  
3 is moved through the opening of the latch handle.

1 18. A system as set forth in claim 12, wherein the  
2 latch unit includes a latch pin mounted to move with the  
3 gate, a latch mounting bracket attached to the second  
4 post on a first side of the fence, and a catch member  
5 pivotally mounted relative to the latch mounting bracket,  
6 the catch member includes a center portion to engage and  
7 retain the latch pin when the gate is in the closed  
8 position, an upper portion manually actuatable to operate  
9 the catch member from the first side of the fence, and a  
10 lower portion actuatable to operate the catch member, and  
11 the latch unit further includes a release member  
12 extending from a second side of the fence to the lower  
13 portion of the catch member, with the release member  
14 being manually actuatable from the second fence side to  
15 actuate the lower portion of the catch member and operate  
16 the catch member.

1 19. A system as set forth in claim 18, wherein the

2 release member is connected to the lower portion of the  
3 catch member with a fastener that transmits a push force  
4 from the release member to the lower portion of the catch  
5 member and which permits relative movement between the  
6 release member and the catch member.

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20. A system as set forth in claim 12, wherein the  
2 latch unit includes a latch pin mounted to move with the  
3 gate, a latch mounting bracket attached to the second  
4 post on a first side of the fence, and a catch member  
5 pivotally mounted relative to the latch mounting bracket,  
6 the catch member includes a center portion to engage and  
7 retain the latch pin when the gate is in the closed  
8 position, an upper portion actuatable to operate the  
9 catch member, and a lower portion actuatable to operate  
10 the catch member, and wherein the latch mounting bracket  
11 and the catch member are each vertically symmetrical  
12 about horizontal lines.

21. An adjustable gate hinge for a fence gate of a  
2 fence, the gate hinge interconnecting the gate to a post  
3 of the fence, the gate hinge supporting the gate and  
4 permitting pivoting movement of the gate relative to the  
5 fence post, the gate hinge including an arrangement to  
6 permit adjustment of the gate relative to the fence in a  
7 direction perpendicular to a plane of the fence, and the  
8 arrangement includes two components that are relatively  
9 movable along the direction perpendicular to a plane of  
10 the fence and that are secured to each other subsequent  
11 to the movement along the direction perpendicular to the  
12 plane of the fence.

22. An adjustable latch unit for a fence gate of a  
2 fence, the latch unit securing the gate to a post of the  
3 fence when the gate is in a closed position, the latch

4 unit including an arrangement to permit adjustment of the  
5 gate relative to the fence in a direction perpendicular  
6 to a plane of the fence, and the arrangement includes two  
7 components that are relatively movable along the  
8 direction perpendicular to a plane of the fence and that  
9 are secured to each other subsequent to the movement  
10 along the direction perpendicular to the plane of the  
11 fence.

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